NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

NEW JERSEY

EARLY SUCCESSIONAL HABITAT DEVELOPMENT/MANAGEMENT

(acre)

CODE 647

DEFINITION

Developing and managing early successional habitats to benefit desired wildlife or natural communities.

PURPOSE

- Increase plant community diversity.
- Provide wildlife or aquatic habitat for early successional species.
- Provide habitat for declining species.

CONDITIONS WHERE PRACTICE APPLIES

On all lands that are suitable for the kinds of wildlife and plant species that are desired.

CRITERIA

- Early successional management will be designed to achieve the desired plant community in density, vertical and horizontal structure, and plant species diversity. If the purpose of practice implementation is a specific wildlife species, the specific plant community that provides desired habitat elements will be the target plant community. Refer to figures 1 and 2 for guidelines on plant height, density and forb and shrub abundance preferences for grassland birds.
- Methods used will be designed to maintain soil erosion quality criteria.
- Vegetative manipulation to maximize plant and animal diversity can be accomplished by disturbance practices including; prescribed burning, light disking, brush hogging, mowing, grazing, or a combination of the above.
- Vegetative manipulation practices should be applied at least once every 2-3 years to maintain the desired early successional plant community and discourage invasion of tree species. Some shrub cover may be desirable for some early successional wildlife species (bobwhite quail, field sparrows).
- Prescribed burning requires a plan and permit from the New Jersey Forest Fire Service. The Forest Fire Service can prepare the plan and conduct the prescribed burn. Contact the regional Forest Fire Service office for further information.
- Native adapted plant materials will be used whenever possible, but introduced species may be appropriate depending upon objectives. No invasive introduced plants will be used. See Table 1 for examples of early successional plant communities in New Jersey.
- Management practices and activities are not to disturb cover during the primary nesting period for grassland species. This is normally April 1 to July 15 for New Jersey. Exceptions will be allowed for periodic burning or mowing when necessary to maintain the health of the plant community. Mowing may be needed

during the plant establishment period to control weeds.

- Measures must be provided to control severe outbreaks of noxious weeds and other invasive species in order to comply with state noxious weed laws. Consult with Rutgers Cooperative Extension for weed control recommendations.

- To benefit insect food sources for grassland nesting birds, spraying or other control of noxious weeds will be done on a "spot" basis to protect forbs and legumes that benefit native pollinators and other wildlife.

CONSIDERATIONS

All habitat manipulations will be planned and managed according to soil capabilities and recommendations for management will avoid excessive soil loss. Nurse crops or companion crops should be used when seeding species that are slow to establish.

Early successional treatments should be rotated throughout the managed area. If treatment is on a two-year schedule, treat no more than one half of the site each year. If treatment is on a three-year schedule, treat no more than one third of the site each year.

Treatment must be accomplished if succession has gone past the desired stages. Management should be scheduled to prevent succession from going past a desired stage.

Managing for early successional plant communities is beneficial if not essential for less mobile animal species. The less mobile the species, the more important to provide all the habitat requirements in a small area.

For grassland bird habitat management consult FOTG Biology Reference Item #23 "Management of New Jersey Grasslands in CRP and WHIP" and item #25 "Conserving Grassland Birds".

Design and install the treatment layout to best facilitate operation of all machinery used on the strips or to make easily controlled burning boundaries. Whenever possible, lay out strips to have some multiple of full width passes by all farm implements.

Grazing may be used as a management tool to achieve the intended purpose of this practice. A grazing plan is required.

This practice may be used to promote the conservation of declining species, including threatened and endangered (plant, wildlife or aquatic) species.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance).

Any use of fertilizers, pesticides and other chemicals to assure early successional management shall not compromise the intended purpose.

Any prescribed burning will have a prescribed burning plan and a permit from the NJ Forest Fire Service.

TABLE 1. EXAMPLE OF AN EARLY SUCCESSIONAL PLANT COMMUNITY IN NEW JERSEY.

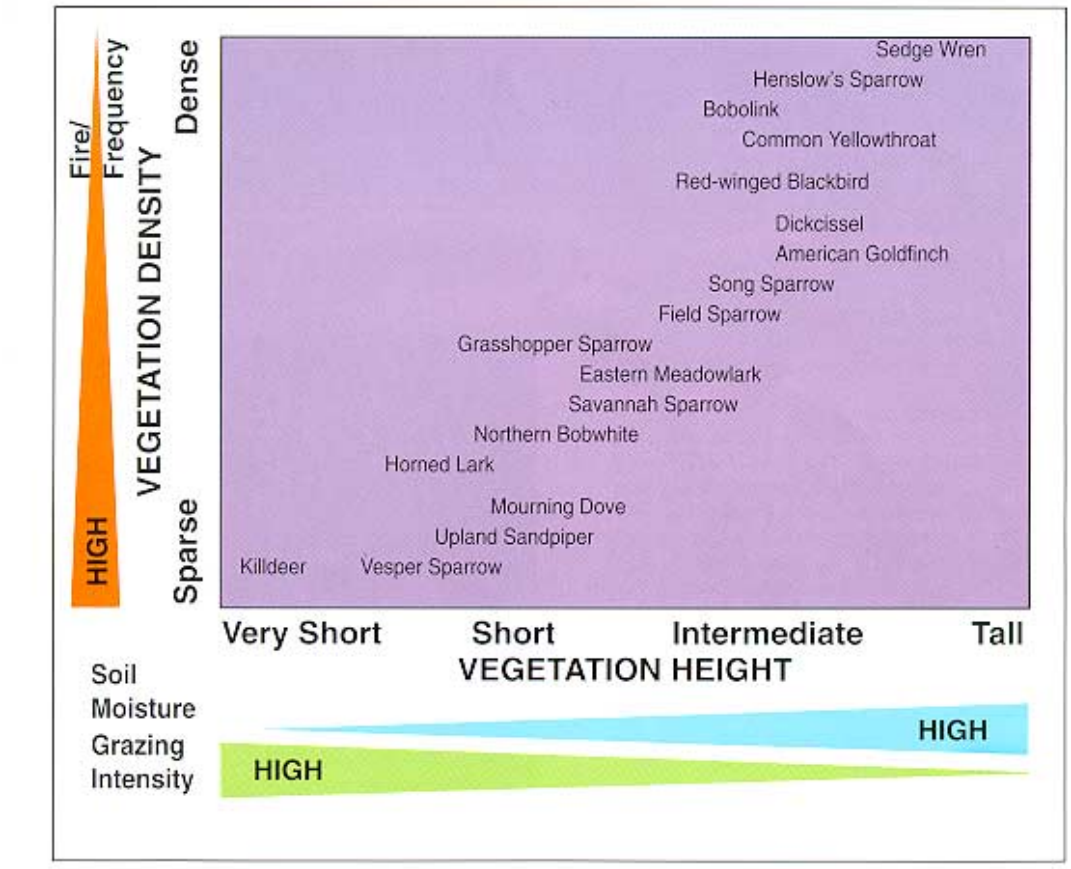
Abandoned Agricultural Land

Years 1-2 Ragweed, foxtail, pigweed, annual grasses such as barnyard grass and fall panicum provide habitat for species such as some grassland birds, bobwhite quail, small mammals, hawks and owls.

Years 3-5 Goldenrods, asters, other forbs, perennial grasses such as orchardgrass, timothy, fescue and trees and small shrubs such as brambles, Eastern red cedar, dogwoods provide habitat for additional wildlife species.

Years 5+ This plant community will become first shrub dominated and then a tree dominated young forest. Management such as mowing, prescribed burning or grazing should be undertaken to keep the community in an early successional stage.

Figure1. Grassland bird species vegetation height and density preferences based on studies in Illinois and Missouri. From *Habitat Establishment, Enhancement and Management for Forest and Grassland Birds in Illinois*. Illinois Dept. of Conservation. Natural Heritage Publication #1. 1993.



Vegetation Density

Sparse = Less Than 25% Cover

Dense = Greater Than 75% Cover

Vegetation Height

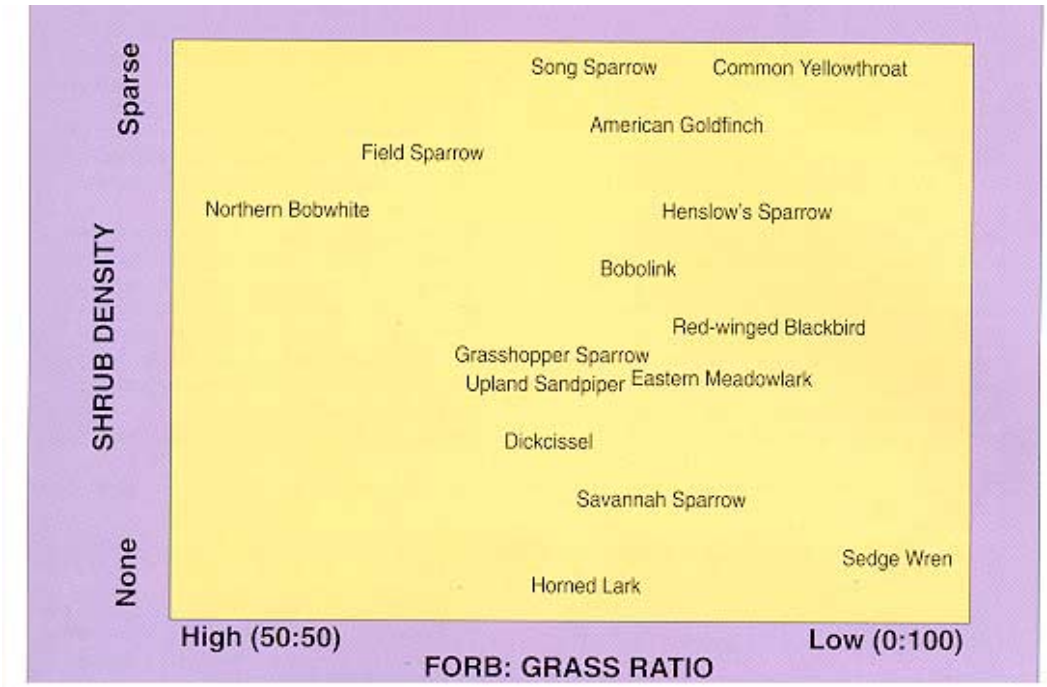
Very Short = Less Than 2” Tall

Short = 2”- 6” Tall

Intermediate = 6”-18” Tall

Tall = Greater Than 18” Tall

Figure 2. Grassland bird species forb abundance and low growing (less than 3 feet tall) woody stem density preferences based on studies in Illinois and Missouri. From *Habitat Establishment, Enhancement and Management for Forest and Grassland Birds in Illinois*. Illinois Dept. of Conservation. Natural Heritage Publication #1. 1993.



EARLY SUCCESSIONAL HABITAT DEVELOPMENT/MANAGEMENT SPECIFICATIONS WORKSHEET

SITE LOCATION: (ATTACH AN AERIAL PHOTO AND/OR SOIL SURVEY MAP)

Site History:

Plant Community Existing:

Wildlife Species Managing for:

Desired Plant Species and Vegetative Structure:

Vegetative Manipulation Practices Planned:(include method and frequency needed)